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10/823,681	04/14/2004	Mitsuharu Saikawa	5905.0111-01	4897

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EXAMINER	
DEODHAR, OMKAR A	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,681	SAIKAWA ET AL.	
	Examiner	Art Unit	
	Omkar A. Deodhar	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-17 and 20-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-17 and 20-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Non-Final Rejection

Priority

Foreign priority to July 16, 1999, is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-17 and 20-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Yasui et al. (US 6,320,580).

Yasui discloses the following with respect to the claims:

Claim 9:

An image processing device (abstract) comprising a character model and a polygon model for applying a transparency set to this character model, wherein said polygon model is applied to said character model and when applying said character model to this polygon model, the image processing of half transparency is performed for said character model based on said transparency data, (In Col. 1. Lines 20-25, Yasui discloses that image processing apparatuses generate polygons which from displayable objects on a screen. In generating polygons, parameters such as alpha values

represent the degree of transparency and color related data. Also refer to Figure 3, showing Polygon Data including location, texture, color and alpha value. Therefore, applying transparency sets to character models is highly customizable.)

Claim 10:

The image processing device according to claim 9, wherein data for gradation processing, by which the transparency changes in order, is set for said polygon model, and when said character model is applied to said polygon model, the gradation processing of half transparency is performed for said character model, (Yasui discloses processes of color changing and transparency parameters that are applied in a gradual manner, thereby teaching "gradation processing". Note that the commonly accepted definition of "gradation" is a process or change taking place through a series of stages, in a gradual manner.)

Claim 11:

The device according to claim 9 or 10, wherein said character model is a projection image model corresponding to an object, (When objects are displayed on a screen, they are projected onto the screen. This is inherent to processes of pixel generation. Also, refer to Figure 10, Item S20 - showing the rendering process for an image.)

Claim 12:

The device according to claim 11, wherein said projection model is a shadow model of the object, (Col. 2. Lines 21-29 teach shadowing processes, casting or

projecting a shadow of an object.)

Claim 13:

The device according to claim 9 or 10, wherein there are a plurality of projection image models and said processing of transparency of said polygon model is performed to the plurality of projection image models, (With reference to Figure 3, Polygon Data, transparency processing takes place.)

Claim 14:

The device according to claim 11, wherein there are a plurality of pairs of said projection image models of characters and said polygon models, and when these pairs overlap, a disabling means is provided between the bottom pair and top pair for disabling the data of transparency of the polygon model of the bottom pair, (Col. 13. Lines 5-17 disclose that a basic process in rendering images is determining which one of the overlapping polygons should and should not be displayed. This is interpreted as teaching a disabling means. Those overlapping polygons that are not displayed are in effect, disabled.)

Claim 15:

The device according to claim 14, wherein said disabling means includes separately an additional polygon model which transparency is set 0, and this additional polygon model is set upon the projection image model of said character, (Col. 13. Lines 5-17 teach a disabling means, as presented with respect to Claim 14. Additionally, Col. 10. Lines 15-21 describe fill data indicating attributes of each polygon. The fill data

indicates an opaque polygon of no transparency.)

Claim 16:

The device according to claim 9 or 10, wherein said polygon model is a tabular polygon and said character model is arranged on this tabular polygon, (polygons are inherently tabular because they are a systematic arrangement of data.)

Claim 17:

An image processing device for performing an image processing movement which generates a shadow of a motion character moving on a display screen, when lights are irradiated [[to]] onto the motion character by a plurality of light sources, (Col. 2. Lines 22-29 teaches shadow processing),

comprising:

a shadow model modeling means for modeling a plurality of shadow models each having color information and a transparency of 100% designated corresponding to each of the plurality of light sources, (Col. 3. Lines 34-42 teach varying transparency, this may range from 0% to 100%);

a gradation polygon modeling means for modeling a plurality of gradation polygons, each of the plurality of gradation polygons being modeled to overlap with corresponding, ones of the plurality of shadow models, each of the plurality of shadow models being arranged above the corresponding ones of the plurality of gradation polygons, and each of the plurality of gradation polygons being set with a transparency of the corresponding ones of the plurality of shadow models, (Refer to the rejections of Claims 10 and 14)

a filter polygon modeling means for modeling a plurality of filter polygons for cutting off

the transparency set to corresponding ones of the plurality of gradation polygons, each of the plurality of filter polygons overlapping a plurality of units of the plurality of shadow models and the plurality of gradation polygons, the plurality of filter polygons having no designated color information and a designated transparency of 0 %, (Col. 4. Lines 52-57 teach displaying shadow areas on the polygons to be drawn and the efficient blending of overlapping polygons. Also, the transparency levels are variable.)

; and

a pixel generation means that generates pixels to represent the shadow of the motion character based on the plurality of units of the plurality of shadow models and the plurality of gradation polygons, (Note that Yasui is directed towards image processing and thereby teaches limitations of pixel generation.)

Claim 20:

A method for processing an image, comprising: providing a character model; providing a polygon model for applying a transparency set to said character model; and applying said polygon model to said character model and when applying said character model to said polygon model, performing the image processing of half transparency for said character model based on said transparency data, (Please refer to the rejection of Claim 9, above.)

Claim 21:

The method according to claim 20, further comprising: setting for said polygon model, data for gradation processing, by which the transparency changes in order; and performing for said character model, when said character model is applied to said

polygon model, the gradation processing of half transparency, ((Please refer to the rejection of Claim 10, above.)

Claim 22:

The method according to claim 20 or 21, wherein said character model is a projection image model corresponding to an object, (Please refer to the rejection of Claim 11, above.)

Claim 23:

The method according to claim 22, further comprising providing said projection model as a shadow model of the object, (Please refer to the rejection of Claim 12, above.)

Claim 24:

The method according to claim 20 or 21, wherein there are a plurality of projection image models; said method further including performing said processing of transparency of said polygon model to the plurality of projection image models, (Please refer to the rejection of Claim 13, above.)

Claim 25:

The method according to claim 22, wherein there are a plurality of pairs of said projection image models of characters and said polygon models; said method further including providing, when these pairs overlap, a disabling means between the bottom pair and top pair for disabling the data of transparency of the polygon model of the bottom pair, (Please refer to the rejection of Claim 14, above.)

Claim 26:

The method according to claim 25, wherein said disabling means includes separately an additional polygon model which transparency is set 0; and said disabling including setting said additional polygon model upon the projection image model of said character, (Please refer to the rejection of Claim 15, above.)

Claim 27:

The method according to claim 20 or 21, further including providing said polygon model as a tabular polygon; and arranging said character model on said tabular polygon, (Please refer to the rejection of Claim 16, above.)

Claim 28:

A method for generating a shadow of a motion character moving on a display screen, comprising:

modeling a plurality of shadow models having color information and a transparency of 100% designated corresponding to each of a plurality of light sources that are irradiated onto the motion character;

modeling a plurality of gradation polygons, each of the plurality of gradation polygons being modeled to overlap with corresponding ones of the plurality of shadow models, each of the plurality of shadow models being arranged above the corresponding ones of the plurality of gradation polygons, and each of the plurality of gradation polygons being set with a transparency of the corresponding ones of the plurality of shadow models;

modeling a plurality of filter polygons for cutting off the transparency set to corresponding ones of the plurality of .gradation polygons, each of the plurality of filter

polygons overlapping a plurality of units of the plurality of shadow models and the plurality of gradation polygons, the plurality of filter polygons having no designated color information and a designated transparency of 0 %; and

generating pixels to represent the shadow of the motion character based on the plurality of units of the plurality of shadow models and the plurality of gradation polygons,

(Please refer to the rejection of claim 17, above.)

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

In view of the misapplication of the Shimizu Patent in the previous Office action, this action is made non-final.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee (US 6,018,350), Shimizu (US 6,271,875) and Futatsugi (6,259,431) are all directed towards image processing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omkar A. Deodhar whose telephone number is 571-272-1647. The examiner can normally be reached on M-F: 8AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OAD

//Corbett B. Coburn//
Primary Examiner, Art Unit 3714